EXAMINER'S AMENDMENT

Applicant's request for examiner's amendment has been admitted as it places the application in condition for allowance.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Larry Nixon on 7/14/2009.

The application has been amended as follows:

Claim 139:

- "comprising at least one of" in line 7 has been changed to "comprising".

- "comprising at least one of" in line 16 has been changed to "comprising".

Claim 140: Canceled.

Claim 154:

- "includes" in line 1 has been changed to "include".

Claim 182:

- "comprising at least one of" in line 7 has been changed to "comprising".

- "comprising at least one of" in line 16 has been changed to "comprising".

Claim 183: Canceled.

Reason for Allowance

The following is an examiner's statement of reasons for allowance:

The searched prior arts and traditional directory services disclose storing data items in hierarchical fashion, and when access request is received, the system normally looks at the entire index or DIT tree, and travels down the list or the tree to locate the requested data item. However, the prior arts do not teach an "intelligent" directory system that organizes data items in accordance with corresponding directory service types comprising identify management, presence management and messaging management, and **ONLY accessing the segment storing data items for requested directory service type without accessing other data items separately stored for another directory service type**. In other words, **prior directory service systems (including the prior arts Tenorio and Harvey, cited in the Office Action) did not have separate modules comprising identity, presence and messaging, and did not receive requests including identification of which type of service is sought.** Rather, the prior directory systems include indexes or trees that manage the entire product line or client information, and travels down the entire index or tree to locate the requested information.

On the other hand, the present application's directory system as recited in independent claims 139 and 182 comprises a few separate service modules within a single directory system, and the requests indicate which one of these service modules needs to be triggered. Particularly, the prior arts do not teach "storing data objects

used by the directory service modules in <u>respectively corresponding different organized</u> <u>logical segments of memory</u>," "receiving directory service <u>requests ... including an</u> <u>identification of the type of requested directory service</u> comprising (a) identity service, (b) presence service, and (c) messaging service" and "returning responses ... <u>without</u> <u>requiring access of other object attribute data separately stored for another of the</u> <u>intelligent directory service modules</u>" as disclosed in the independent claims 139 and 182. **The present invention therefore prevents looking up unnecessary information, by disassembling the directory system into several classes of information comprising identity, presence and messaging, and identifying in the information request which of these modules needs to be triggered, thereby saving processing time and cost.** Further, when the system retrieves the desired data item from the segment of the requested directory service type, it does so without interfering with other segments separately allocated for other directory service types.

Thus, the prior arts neither render obvious nor anticipate the combination of claimed elements recited in independent claims 139 and 182. Dependent claims 141 – 181 and 184 – 223 are allowed at least by virtue of their dependencies from independent claims 139 and 182.

After a thorough search and examination of the present application, claims 139, 141 – 182 and 184 – 223 are hereby allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SANGWOO AHN whose telephone number is (571)272-

5626. The examiner can normally be reached on M-F 10-6.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tim T. Vo/   7/15/2009
Supervisory Patent Examiner, Art Unit 2168   /S. A./
                                                         Examiner, Art Unit 2168